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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/631,853

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EXAMINER

WONG, LUT

ART UNIT

PAPER NUMBER

2129

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/631,853	<b>Applicant(s)</b> GRAY ET AL.	
	<b>Examiner</b> LUT WONG	<b>Art Unit</b> 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-38 and 40-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-38 and 40-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2-12-2008</u> .                                               | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This office action is responsive to an RCE AMENDMENT entered Feb 12, 2008 for the patent application 10/631853.

### ***Status of Claims***

Claims 1-9, 12-38, 40-57 are pending. Claims 31-38, 40-57 have been amended. Claims 10 and 39 are cancelled.

### ***Response to Arguments***

In re pgs 23-25, applicant's responses to 1.105 requirements have been fully considered.

In re pg. 25, applicant's amendment to the specification has been entered.

In re pg. 26, applicant's argument and amendment have overcome the 112 2<sup>nd</sup> rejections.

In re pg. 27-31, applicant's amendments have overcome the 101 rejections. The definition of "tuple space" has been changed due to the amendment made in spec [0058]. As used herein, "tuple space" is defined as the physical space of the memory in which a tuple is stored (See remark pg. 28). Such definition renders the system of claims 1 and 30 not being software per se and thus directed to statutory subject matter.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The user 1 recited in [0066] is not shown. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Duplicate Claim Warning***

Applicant is advised that should claims 1-9, 12-29 be found allowable, claims 30-38, 40-57 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant admitted, in pg. 33 of the remark filed 5/7/2007, that claims 30-38, 40-57 recite same subject matter as claims 1-9,12-29 except the scope is boarder because claims 30-38, 40-57 are not limited to communication system.

The Examiner contends that these claims are duplicate because the phrase "communication system" recited in the preamble of claims 1-9,12-29 is not a claim limitation. It merely recite an intended purpose or intended use. See MPEP2111.02II.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art (APA).**

**Claim 1** is rejected because claim 10 (cancelled) is interpreted as Jepson claim, which means the limitation claim 1 such as “tuple space”, “user agents”, “deontic task tree” are anticipated.

**Claim 30** is rejected for the same reason because claim 39 (cancelled) is interpreted as Jepson claim.

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive.

In re pg. 32, applicant argues

subject which the Applicant regards as the invention. Therefore, the Examiner's construction of the claims as an admission of prior art is erroneous with the Examiner's construction thereof rendering the claims to be violation of the second paragraph of 35 U.S.C. §112 since the Applicants did not regard the claimed subject matter of claims 10 and 39 to be an admission of prior art.

In response,

1) There is no contradiction between rejecting a claim under 112 2<sup>nd</sup> and interpreting a claim as Jepson.

2) It was unclear to the Examiner what the applicant is intended to claim at the beginning. A 112 2<sup>nd</sup> rejection was made on Jan 08, 2007 in an attempt to clarify the issue. The applicant did not address the issue (See OA 7/30/2008 p.6), let alone the Examiner in guessing what the claim is about. Nevertheless, the Examiner found the answer in MPEP. Applicant's claim language uses Jepson claim format, which leads the Examiner in interpreting the claim as Jepson claim. As a result, limitations appear before the word "improvement" are admitted prior art.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-9, 12-38, 40-57 are rejected under 35 U.S.C. 103(a) as being obvious over Buhr et al ("Feature-Interaction Visualization and Resolution in an**

**Agent Environment” FIW 1998), and in view of Rui et al (“Feature Execution Tree and Interactions” July 2002).**

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim 1:**

1. Claim 1 is drawn to a system for implementing personalizable and customizable features while avoiding feature interactions comprising tuple space, plurality of agents, and deontic task tree. Buhr teaches feature Interactions (FI) avoidance using blackboard, agents and Use Case Maps (UCM) (See e.g. Buhr section I, abstract and Fig. 1).

2. The difference between Buhr and the claim at issue is that Buhr uses UCM for structural representation of features while the claim uses deontic task tree.

3. Rui teaches deontic task tree (See e.g. Rui section 2 on Feature interaction Tree (FET). EN: deontic task tree and feature execution tree are equivalent. They are both tree structure). Rui also teaches that the parent node placing deontic modalities on the behaviour of at least one of said child (See e.g. Rui section 2, especially on “FET represents the control logic of features in terms of subtask that can either succeed or

fail). Rui also teaches UCM and disclosed why FET is better than UCM (See e.g. section 1.3 that UCM lacks precise semantic)

4. Buhr and Rui are in same field of endeavor, namely feature interaction avoidance in telephony. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modified Buhr's with Rui. One would have been motivated to do so because deontic tree is a tree structure of duties or obligations (As argued by the applicant in pg. 29 of the remark), which UCM lacks of. UCM only provide visual representation of structures and lacks precise semantic (See e.g. Rui section 1.3). Hence, by replacing UCM with deontic tree, one can incorporate duties or obligations into the structure representation and achieve predictable result of feature Interaction avoidance at planning and runtime.

**Claims 2, 7, and 12:** note that Rui teaches sequence operator (See e.g. Rui section 2.3 on *SEQ*).

**Claims 3-8, 13-16, 17-22** are rejected with the same reason as stated in the previous office action dated 1/8/2007.

**Claims 9, 23-29** are rejected with the same reason as stated in the previous office action dated 1/8/2007.

**Claims 30-38, 40-57** are rejected for the same reason as claims 1-9,12-29 since applicant admits (pg. 33 of the remark filed 5/7/2007) that the limitation is the same except the scope is boarder.

### ***Response to Arguments***



Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lut Wong whose telephone number is (571) 270-1123. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent David can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lut Wong/  
Patent Examiner, AU 2129

/David R Vincent/

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Supervisory Patent Examiner, Art Unit 2129